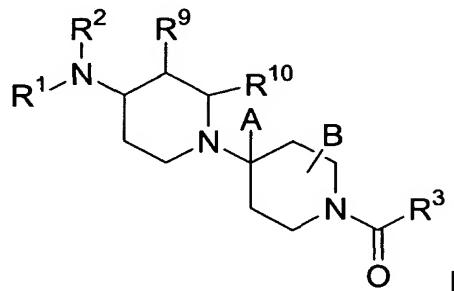


WHAT IS CLAIMED:

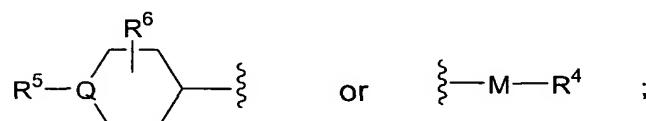
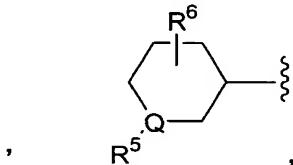
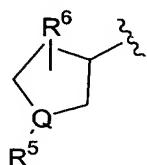
1. A compound represented by the structural formula I

5



or a pharmaceutically acceptable salt or solvate thereof; wherein:

R¹ is



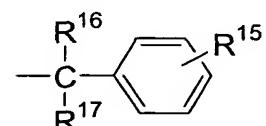
or $\begin{array}{c} \vdots \\ \text{---} \end{array} \text{---} \text{M} \text{---} \text{R}^4$;

10

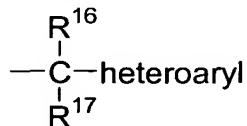
R² is selected from the group consisting of H, alkyl, aryl, arylalkyl, heteroarylalkyl, alkylketone, arylketone, alkyl, haloalkyl, cycloalkyl, cycloheteroalkyl, cycloalkylalkyl, alkylsulfonyl, arylsulfonyl, alkoxyalkyl, or amide;

15

R³ is selected from the group consisting of aryl, 6-membered heteroaryl, fluorenyl; and diphenylmethyl, 6 membered heteroaryl-N-oxide,



and



, wherein said aryl, fluorenyl,

diphenyl or heteroaryl is optionally substituted with 1-4 substituents which

can be the same or different and are independently selected from the group consisting of R¹¹, R¹², R¹³, R¹⁴ and R¹⁵;

R⁴ is 1-3 substituents selected from the group consisting of H, halo, alkyl, haloalkyl, alkoxy, cycloalkyl, cycloheteroalkyl, amide, CF₃, OCF₃, aryl, 5 heteroaryl, -XR⁷, -C(O)C₃-C₈cycloalkyl, -C(O)C₃-C₈cycloheteroalkyl, -(C₁-C₆)alkyl-N(R²¹)SO₂R²², -(C₁-C₆)alkyl-C(O)NR²⁰R²¹, -CN, -CO₂H, -CO₂R²², R⁸-aryl(C₁-C₆)alkyl-, R⁸-heteroaryl(C₁-C₆)alkyl-, -C(O)-(C₁-C₆)alkyl, R⁸-aryl-C(O)-, -C(O)NR²¹R²², -C(O)NH₂, -C(O)N(H)OH, -(C₁-C₆)alkyl-N(R²¹)C(O)R²², -(C₁-C₆)alkyl-N(R²¹)CO₂R²²,

10 -(C₁-C₆)alkyl-N(R²¹)C(O)NR²¹R²², -(C₁-C₆)alkyl-NR²¹R²², -(C₁-C₆)alkyl-NH₂, (C₁-C₆)alkylSO₂NR²¹R²² and -SO₂NR²¹R²², wherein R⁴ can be the same or different and is independently selected when there is more than one R⁴ present;

R⁵ is selected from the group consisting of H, arylalkyl, (C₁-C₆)alkyl, 15 R⁸-aryl(C₁-C₆)alkyl-, R⁸-heteroaryl(C₁-C₆)alkyl-, -SO₂-(C₁-C₆)alkyl, -SO₂-(C₃-C₆)cycloalkyl, -SO₂-aryl, R⁸-aryl-SO₂-, -C(O)-(C₁-C₆)alkyl, -C(O)-(C₄-C₆)cycloalkyl, R⁸-aryl-C(O)-, -C(O)NR²¹R²², and -SO₂NR²¹R²²;

R⁶ is H, -(C₁-C₆)alkyl, or -(C₁-C₆)haloalkyl;

R⁷ is selected from the group consisting of aryl, substituted aryl, 20 heteroaryl, alkyl, haloalkyl and cycloalkyl;

R⁸ is 1, 2 or 3 substituents selected from the group consisting of H, halo, (C₁-C₆)alkyl, (C₁-C₆)alkoxy, -CF₃, -OCF₃, CH₃C(O)-, -CN, CH₃SO₂-, CF₃SO₂- and -NH₂, wherein R⁸ can be the same or different and is independently selected when there are more than one R⁸ present;

25 R⁹, R¹⁰ and B can be the same or different and are each independently selected from the group consisting of hydrogen, (C₁-C₆)alkyl, and -(C₁-C₆)haloalkyl;

R¹¹ and R¹² can be the same or different and are each independently selected from the group consisting of (C₁-C₆)alkyl, -(C₁-C₆)haloalkyl, 30 halogen, -NR¹⁹R²⁰, -OH, CF₃, -OCH₃, -O-acyl, and -OCF₃;

R¹³ is selected from the group consisting of hydrogen, R¹¹, H, phenyl, -NO₂, -CN, -CH₂F, -CHF₂, -CHO, -CH=NOR₁₉, pyridyl-N-oxide, pyrimidinyl, pyrazinyl, N(R₂₀)CONR₂₀R₂₁, -NHCONH(chloro-(C₁-C₆)alkyl), -

NHCONH((C₃-C₁₀)-cycloalkyl(C₁-C₆)alkyl), -NHCO(C₁-C₆)alkyl, -NHCOCF₃, -NHCOCF₃, -NSO₂N((C₁-C₆)alkyl)₂, -NSO₂(C₁-C₆)alkyl, -N(SO₂CF₃)₂, -NHCO₂(C₁-C₆)alkyl, (C₃-C₁₀)cycloalkyl, -SR²², -SOR²², -SO₂R²², -SO₂NH(C₁-C₆)alkyl, -OSO₂(C₁-C₆)alkyl, -OSO₂CF₃, hydroxy(C₁-C₆)alkyl, -

5 CONR¹⁹R²⁰, -CON(CH₂CH₂-O-CH₃)₂, -OCONH(C₁-C₆)alkyl, -CO₂R₁₉, -Si(CH₃)₃ and -B(OC(CH₃)₂)₂;

R¹⁴ is selected from the group consisting of (C₁-C₆)alkyl, -(C₁-C₆)haloalkyl -NH₂ and R¹⁵-phenyl;

10 R¹⁵ is 1-3 substituents selected from the group consisting of hydrogen, (C₁-C₆)alkyl, -(C₁-C₆)haloalkyl, -CF₃, -CO₂R²⁰, -CN, (C₁-C₆)alkoxy and halogen; wherein R¹⁵ can be the same or different and is independently selected when there are more than one R¹⁵ present;

15 R¹⁶ and R¹⁷ can each be the same or different and are each independently selected from the group consisting of hydrogen and (C₁-C₆)alkyl, or

R¹⁶ and R¹⁷ together are a C₂-C₅ alkylene group and with the carbon to which they are attached from a spiro ring of 3 to 6 carbon atoms;

20 R¹⁹, R²⁰ and R²¹ can each be the same or different and are each independently selected from the group consisting of H, (C₁-C₆)alkyl and (C₃-C₆)cycloalkyl;

R²² is selected from the group consisting of (C₁-C₆)alkyl, -(C₁-C₆)haloalkyl, (C₂-C₆)hydroxyalkyl, (C₂-C₆)alkylene, (C₃-C₆)cycloalkyl, aryl and aryl(C₁-C₆)alkyl-;

25 A is selected from the group consisting of H, (C₁-C₆)alkyl, and (C₂-C₆) alkenyl.

M is aryl or heteroaryl optionally substituted with R⁴;

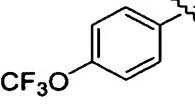
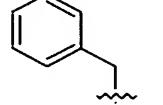
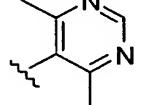
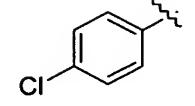
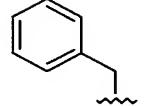
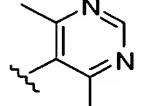
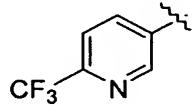
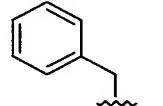
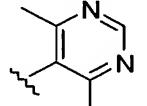
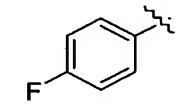
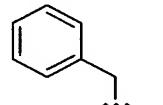
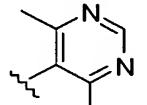
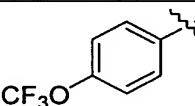
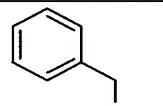
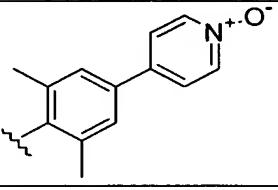
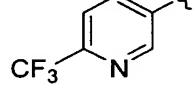
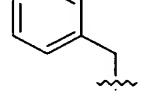
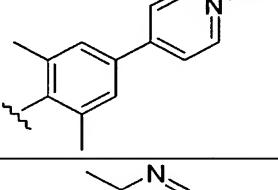
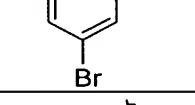
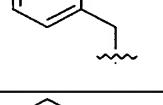
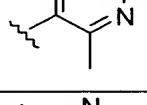
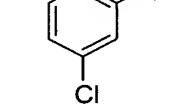
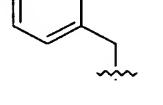
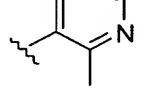
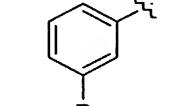
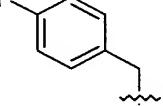
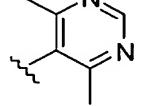
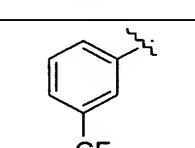
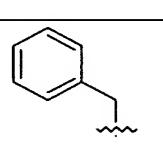
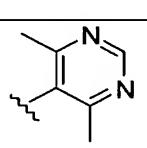
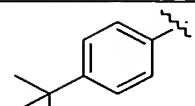
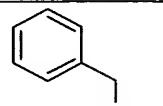
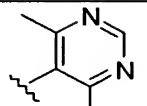
Q is CH or N; and

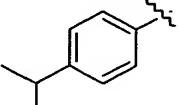
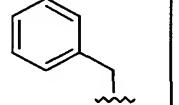
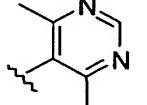
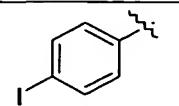
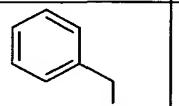
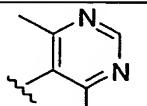
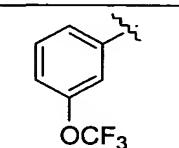
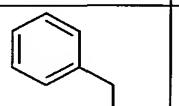
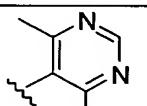
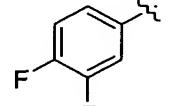
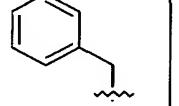
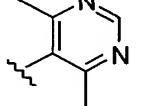
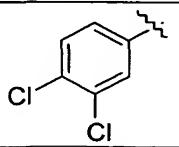
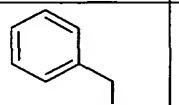
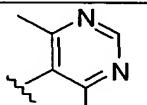
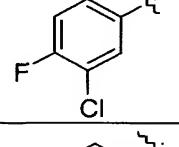
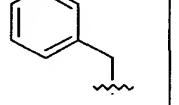
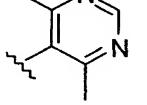
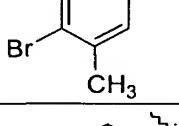
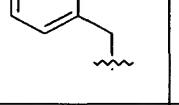
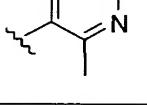
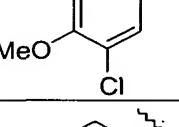
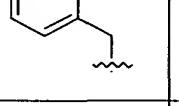
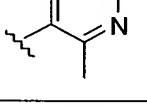
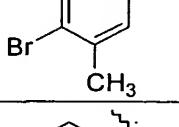
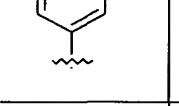
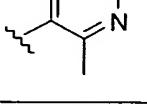
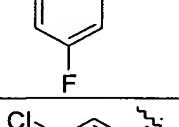
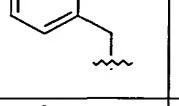
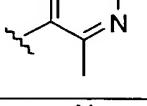
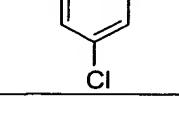
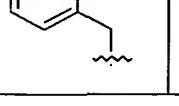
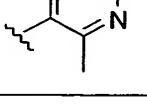
X is selected from the group consisting of CH₂, SO₂, SO, S, and O, with the following proviso:

30 when R¹ is phenyl, pyridyl, thiophenyl or naphthyl, R² cannot be H, -(C₁-C₆)alkyl or -C(O)-(C₁-C₆)alkyl.

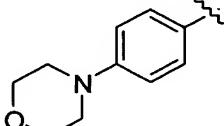
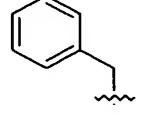
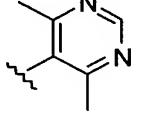
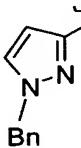
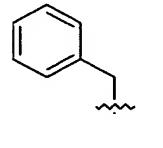
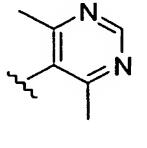
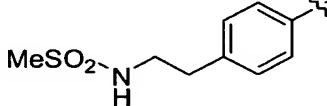
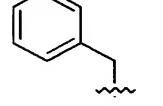
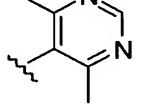
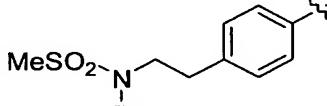
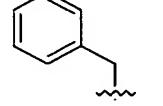
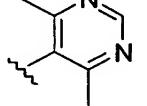
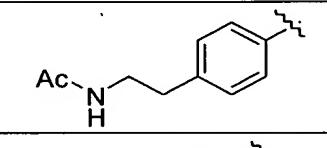
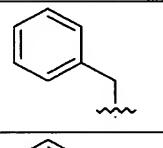
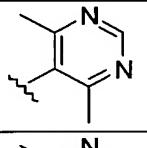
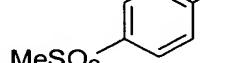
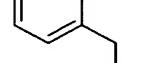
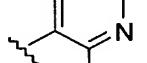
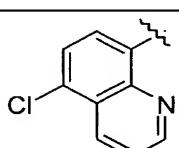
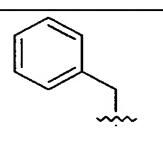
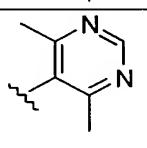
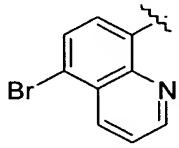
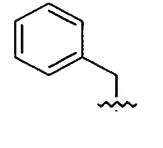
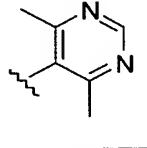
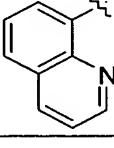
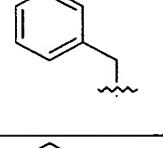
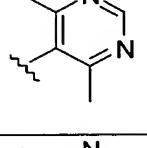
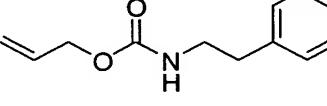
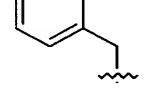
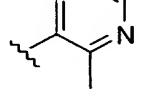
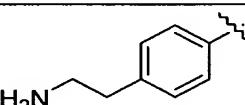
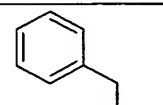
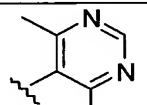
2. A compound having the structural formula I according to claim 1 wherein R⁹, R¹⁰ and B are H, A is CH₃, and R¹, R² and R³ are as defined in the following table:

#	R ¹	R ²	R ³
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

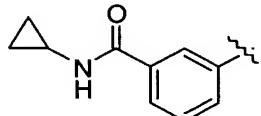
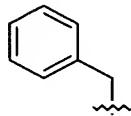
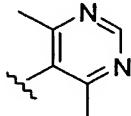
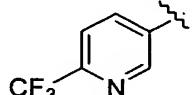
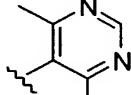
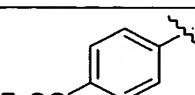
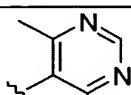
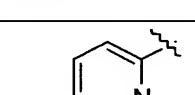
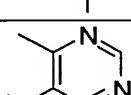
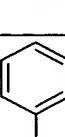
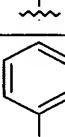
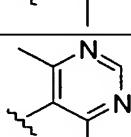
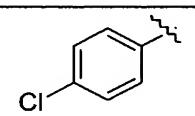
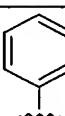
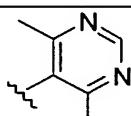
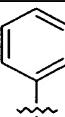
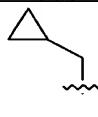
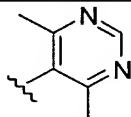
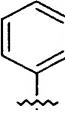
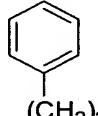
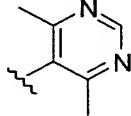
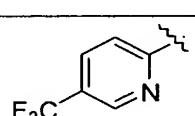
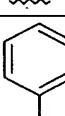
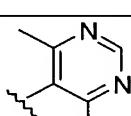
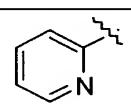
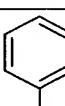
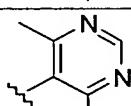
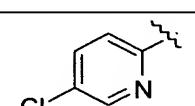
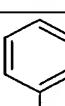
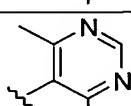
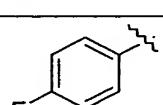
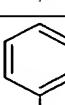
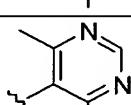
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			

22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			

33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			

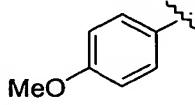
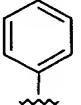
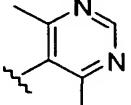
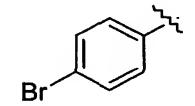
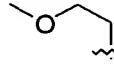
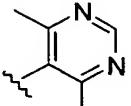
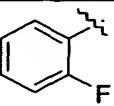
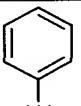
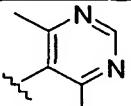
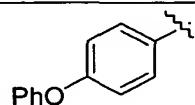
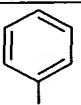
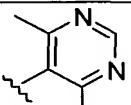
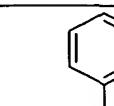
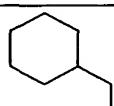
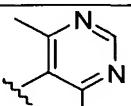
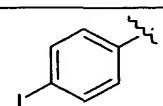
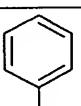
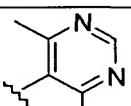
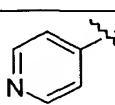
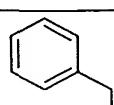
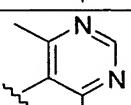
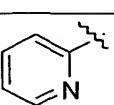
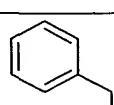
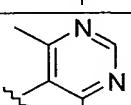
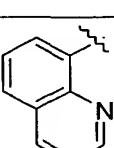
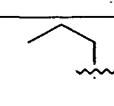
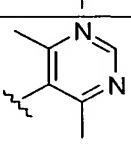
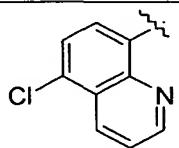
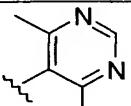
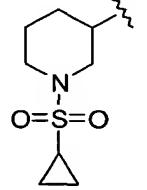
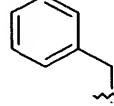
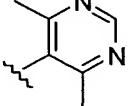
45			
46			
47			
48			
49			
50			
51			
52			
53			
54			
55			

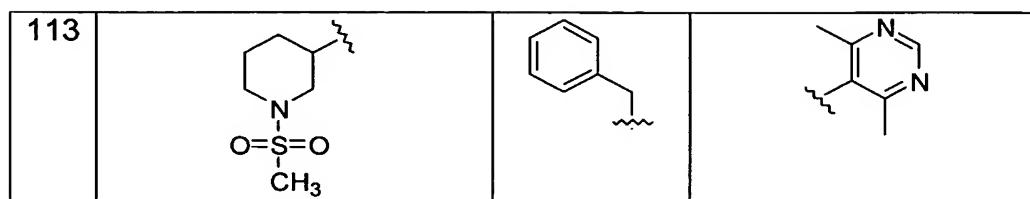
56			
57			
58			
59			
60			
61			
62			
63			
64			
65			
66			
67			

68			
69			
70			
71			
72			
73			
74			
75			
76			
77			
78			
79			

80			
81			
82			
83			
84			
85			
86			
87			
88			
89			

90			
91			
92			
93			
94			
95			
96			
97			
98			
99			
100			
101			

102			
103			
104			
105			
106			
107			
108			
109			
110			
111		CH ₃	
112			

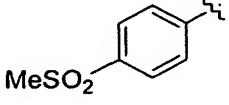
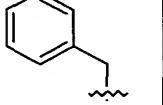
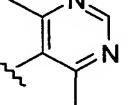
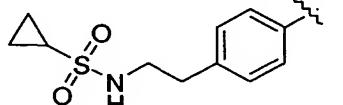
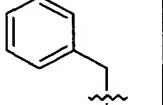
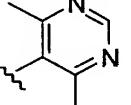
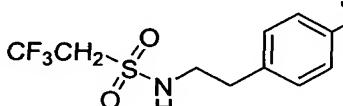
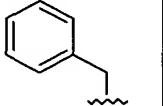
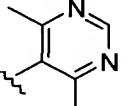
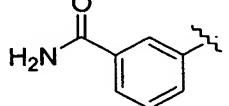
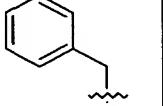
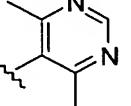
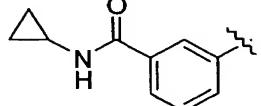
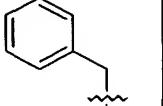
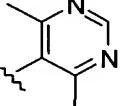
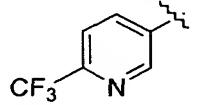
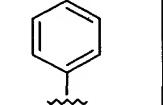
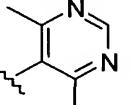
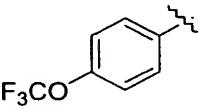
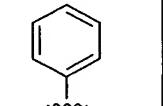
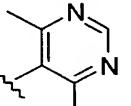
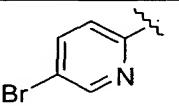
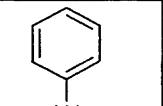
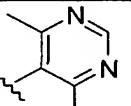
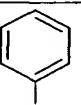
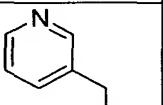
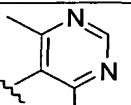
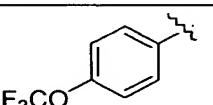
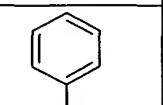
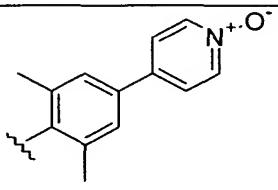
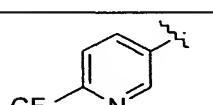
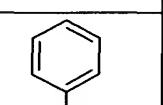
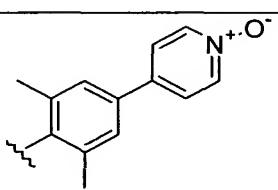


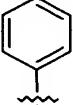
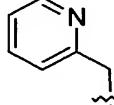
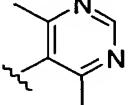
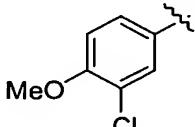
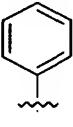
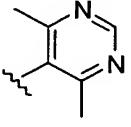
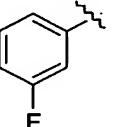
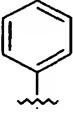
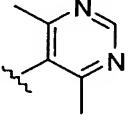
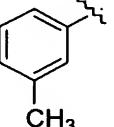
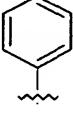
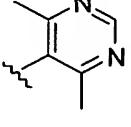
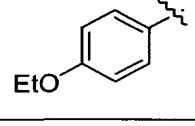
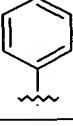
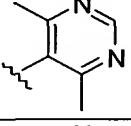
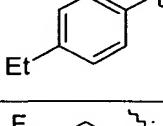
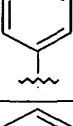
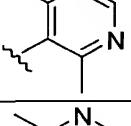
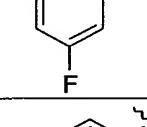
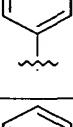
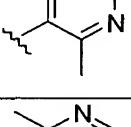
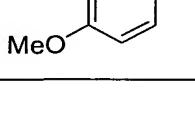
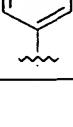
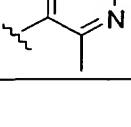
3. A compound according to claim 2 wherein R¹, R² and R³ each represent:

5

#	R ¹	R ²	R ³
1			
2			
6			
10			
11			
12			
13			
14			

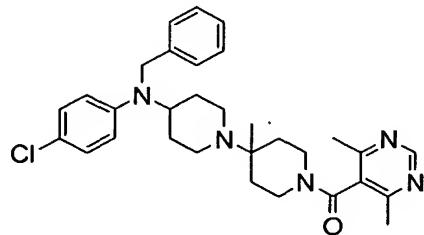
16	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>
17	<chem>CC1=CC=C(C=C1)Br</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>
28	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>
29	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>
31	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>
36	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>
37	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>
39	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>
40	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>
47	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>
49	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>	<chem>CC1=CC=C(C=C1)C(F)(F)F</chem>

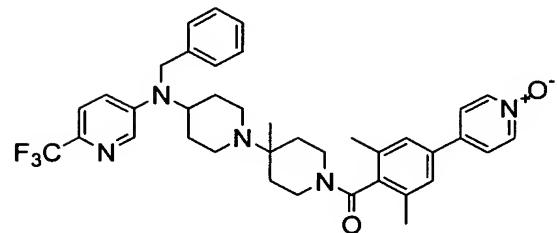
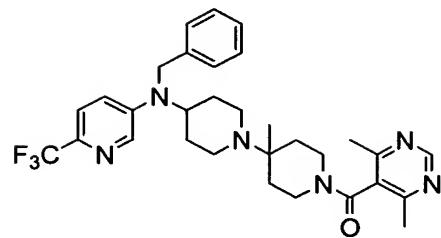
50			
56			
57			
61			
68			
69			
70			
71			
80			
81			
82			

90			
91			
93			
96			
99			
100			
101			
102			

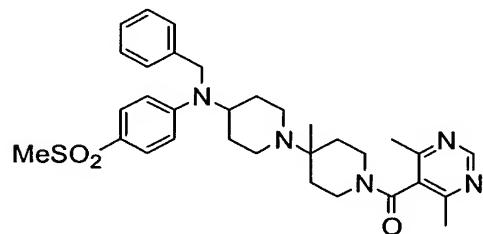
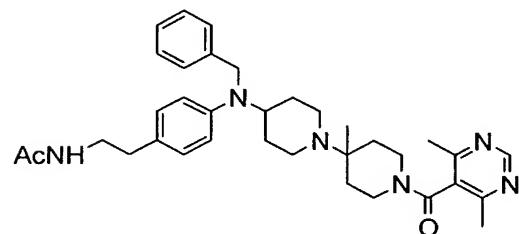
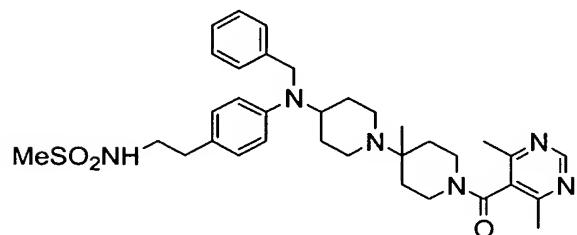
4. A compound according to claim 3 represented by the structural formulae:

5

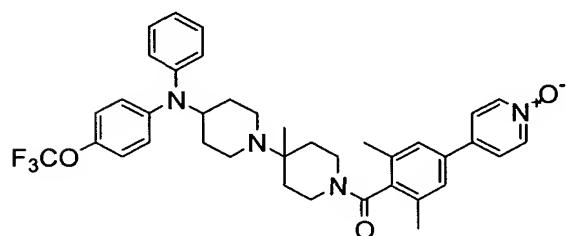
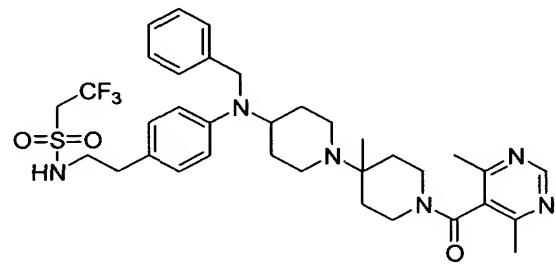
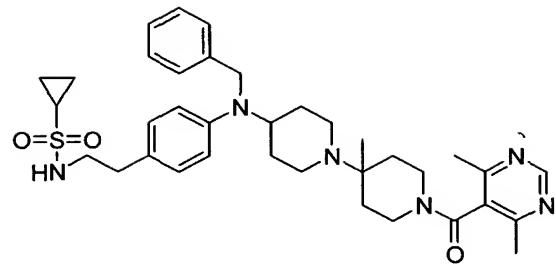




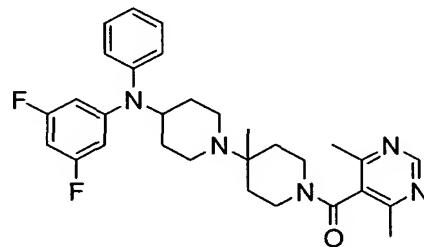
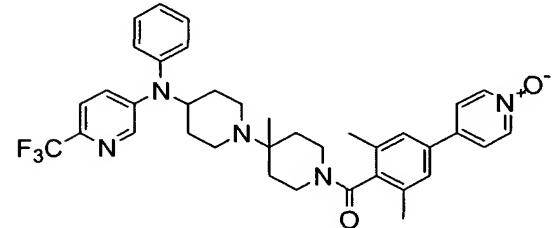
5



10



5



10

5. A pharmaceutical composition comprising one or more compounds of claim 1.

6. A pharmaceutical composition comprising one or more compounds of claim 4
7. The pharmaceutical composition according to claim 5 further comprising one or more pharmaceutically acceptable carriers.
8. The pharmaceutical composition according to claim 6 further comprising one or more pharmaceutically acceptable carriers.
9. The pharmaceutical composition according to claim 5, wherein said pharmaceutical composition contains a therapeutically acceptable amount of said one or more compounds.
10. The pharmaceutical composition according to claim 6, wherein said pharmaceutical composition contains a therapeutically acceptable amount of said one or more compounds.
11. A method of treating Human Immunodeficiency Virus comprising administering to a patient in need of such treatment a therapeutically effective amount of one or more compounds according to claim 1.
12. A method of treating Human Immunodeficiency Virus comprising administering to a patient in need of such treatment a therapeutically effective amount of one or more compounds according to claim 4.
13. The method of claim 12 further comprising administering said one or more compounds in combination with one or more pharmaceutically acceptable carriers.
14. The method of claim 12 further comprising administering one or more antiviral or other agents useful in the treatment of Human Immunodeficiency Virus.

15. The method of claim 14 wherein said antiviral agent is selected from the group consisting of nucleoside reverse transcriptase inhibitors, non-nucleoside reverse transcriptase inhibitors and protease inhibitors.

5

16. The method of claim 14 wherein said antiviral agent is selected from the group consisting of zidovudine, lamivudine, zalcitabine, didanosine, stavudine, abacavir, adefovir dipivoxil, lobucavir, BCH-10652, emtricitabine, beta-L-FD4, DAPD, lodosine, nevirapine, delavirdine, 10 efavirenz, PNU-142721, AG-1549, MKC-442, (+)-calanolide A and B, saquinavir, indinavir, ritonavir, nelfinavir, lasinavir, DMP-450, BMS-2322623, ABT-378, amprenavir, hydroxyurea, ribavirin, IL-2, IL-12, pentafuside, Yissum No. 11607 and AG-1549.

15 17. A method of treating solid organ transplant rejection, graft v. host disease, arthritis, rheumatoid arthritis, inflammatory bowel disease, atopic dermatitis, psoriasis, asthma, allergies or multiple sclerosis comprising administering to a patient in need of such treatment a therapeutically effective amount of one or more compounds of claim 1

20

18. The method of claim 17 for treating solid organ transplant rejection, graft v. host disease, rheumatoid arthritis, inflammatory bowel disease or multiple sclerosis further comprising administering said one or more compounds in combination with one or more pharmaceutically acceptable 25 carriers.

19. The method of claim 17 for treating solid organ transplant rejection, graft v. host disease, rheumatoid arthritis, inflammatory bowel disease or multiple sclerosis further comprising administering one or more other 30 agents useful in the treatment of said diseases.

20. A kit comprising in separate containers in a single package pharmaceutical compositions for use in combination to treat Human Immunodeficiency Virus which comprises in one container a pharmaceutical composition comprising one or more compounds of claim 1

5 in one or more pharmaceutically acceptable carriers, and in separate container, one or more pharmaceutical compositions comprising one or more antiviral or other agents useful in the treatment of Human Immunodeficiency Virus in one or more pharmaceutically acceptable carriers.